

CLAIMS:

1. A method of manufacturing a laser detector grating unit (LDGU) comprises:
securing a laser unit and a collimator lens to each of a plurality of photodiode
chips, which photodiode chips form part of a photodiode wafer;
securing at least one grating beam-splitter strip across a plurality of said
5 photodiode chips forming the photodiode wafer; and
separating the individual laser detector grating units from each other, by
dividing the at least one grating beam-splitter strip and separating the photodiode chips.
2. A method as claimed in claim 1, in which the division of the at least one
10 beam-splitter strip and the separation of the photodiode chips is done at substantially the
same time.
3. A method as claimed in either claim 1 or claim 2, in which sides of individual
grating beam-splitters split from the at least one grating beam-splitter strip do not require
15 finishing after separation.
4. A method as claimed in any preceding claim, in which the grating beam-
splitters transmit light through only front, rear and bottom faces.
- 20 5. A method as claimed in any preceding claim, in which the grating beam-
splitter strip is substantially cuboidal.
6. A method as claimed in any preceding claim, in which the upper and front
faces are substantially reflective.
- 25 7. A method as claimed in claim 6, in which the front face has an opening in the
reflective coating of each of the grating beam-splitters to be formed from the grating beam-
splitter strip.

8. A method as claimed in any preceding claim, in which grating structures are formed on or applied to the rear face of the grating beam-splitter.
9. A method as claimed in any preceding claim, in which the grating beam-splitter extends substantially across the width of the LDGU.
10. A laser detector grating unit (LDGU) comprises a laser, a collimator lens, a photodetector section and a grating beam-splitter, wherein the grating beam splitter has substantially reflective upper and front faces and a grating structure on a rear face.
11. A LDGU as claimed in claim 10, in which a rear face of the grating beam-splitter incorporates a holographic grating structure.
12. An LDGU as claimed in claim 11, in which the grating structure has a herringbone shape.
13. An LDGU as claimed in either claim 11 or 12, in which the grating structure has a pitch equal to the pitch of elements of the photodetector section on the wafer.
14. An LDGU as claimed in any one of claims 10 to 13, in which the grating beam-splitter has unfinished side faces.
15. A grating beam-splitter as claimed in any one of claims 10 to 14.